UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

JUL 0 2 2012

The Honorable Collin O'Mara, Secretary
Department of Natural Resources
and Environmental Control
89 Kings Highway
Dover, Delaware 19901

Dear Secretary ~~O'~~Collin O'Mara:

In September 2011, the State of Delaware completed a triennial review of its surface water quality standards (SWQS) regulation. The triennial review resulted in several revisions to the SWQS. The review was conducted in accordance with the Clean Water Act (CWA or the Act) Section 303(c). The U.S. Environmental Protection Agency (EPA) is approving those revisions in accordance with that same provision of the Act.

The Delaware Department of Natural Resources and Environmental Control (DNREC) issued revisions to the SWQS by Secretary's Order dated May 17, 2011. The Office of the Attorney General certified on September 12, 2011 that the regulations were duly adopted pursuant to State law. In accordance with Section 303(c)(2)(A) of the CWA, 33 U.S.C. §1313(c)(2)(A), and 40 CFR §131.20(c), DNREC forwarded the amended regulation to EPA, Region III, on September 13, 2011, and we received it on September 22, 2011.

The purpose of this letter is to approve the new and revised provisions of the State's water quality standards regulation. The specific provisions that EPA is approving, and the rationale for the Agency's approval, can be found in Enclosure 1 to this letter.

Under Section 7 of the Endangered Species Act (ESA), 42 U.S.C. §1536, EPA has the obligation to determine if the Agency's approval of these modifications to the State's water quality standards regulation will adversely affect threatened and endangered species and their critical habitat in Delaware. To fulfill our obligation, EPA prepared an evaluation of the new and revised provisions of Delaware's regulation, included here as Enclosure 2, and made a finding that our approval will have no effect, or may affect, but is not likely to adversely affect, threatened and endangered species in the State. The Fish and Wildlife Service (FWS) concurred with this finding via electronic mail on December 2, 2011 (Enclosure 3), and the National Marine Fisheries Service (NOAA Fisheries) concurred on March 29, 2012 (Enclosure 4).

It should be noted that in accordance with the Memorandum of Agreement Between the Environmental Protection Agency, Fish and Wildlife Service and National Marine Fisheries Service Regarding Enhanced Coordination Under the Clean Water Act and Endangered Species Act (66 FR 11202; February 22, 2011), EPA is scheduled to consult nationally with the Services on EPA's aquatic life criteria recommendations published under Section 304(a) of the CWA, 33 U.S.C. §1314(a). The chronic freshwater aquatic life criterion for mercury which Delaware revised in this action and EPA is approving will be subject to this consultation. Therefore, EPA's approval of this aquatic life criterion is subject to the results of the national consultation.

In addition to the revisions DNREC adopted in this submission, the SWQS Section 4.4 indicates that for the waters of the Delaware River and Delaware Bay, the duly adopted Delaware River Basin Commission (DRBC) Water Quality Regulations shall be the applicable criteria. DRBC amended a number of criteria in its Water Quality Regulations on March 23, 2011. This amendment essentially revised SWQS Section 4.4. This letter takes no action on that provision of Delaware regulation; that provision as revised still needs to be reviewed and approved by EPA.

Again, EPA would like to commend DNREC's water quality standards staff for their completion of this review of the State's water quality standards regulation. We look forward to their continued best efforts as they embark upon the next triennial review. My staff is prepared to assist DNREC in these efforts.

If you have any questions, please do not hesitate to contact me or have your staff contact Ms. Amie Howell, EPA's Delaware Liaison, at 215-814-5722.

Sincerely,

Shawn M. Garvin
Regional Administrator

Enclosures (4)

cc: Mr. Leopoldo Miranda (USFWS)
Mr. Daniel S. Morris (NOAA Fisheries)

Enclosure 1

Delaware Surface Water Quality Standards Revision
Triennial Review, Secretary's Order May 17, 2011

Approved Provision	Description of Revision	EPA Rationale
Mercury Aquatic Fresh Chronic Criterion	Previous criterion = 0.077 ug/l Revised criterion = 0.77 ug/l	Criterion is consistent with EPA's recommendations published in the National Recommended Water Quality Criteria: 2002 (EPA 822-R-02-047)
Acrolein (human health/fish ingestion)	Previous criterion = 300 ug/l Revised criterion = 9.3 ug/l	Developed using EPA methodologies, and updated information from IRIS
Acrolein (human health/fish and water ingestion)	Previous criterion = 190 ug/l Revised criterion = 6.1 ug/l	Developed using EPA methodologies, and updated information from IRIS
Toluene (human health/fish ingestion)	Previous criterion = 75000 ug/l Revised criterion = 30000 ug/l	Developed using EPA methodologies, and updated information from IRIS
1,1,1-Trichloroethane	Previous criterion = N/A Revised criterion = 1400000 ug/l	Developed using EPA methodologies, and information from IRIS
Total Toxic Equivalence (TEF) value Dibenzo-p-dioxins congener	OCDD previous TEF value = 0.0001 OCDD revised TEF value = 0.0003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Dibenzofurans congeners	1,2,3,7,8-PnCDF previous TEF value = 0.05 1,2,3,7,8-PnCDF revised TEF value = 0.03	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Dibenzofurans congeners	OCDF previous TEF value = 0.0001 OCDF revised TEF value = 0.0003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Non-ortho PCBs congeners	PCB 81 previous TEF value = 0.0001 PCB 81 revised TEF value = 0.0003	Criterion developed through scientifically defensible methods. (1)

Total Toxic Equivalence (TEF) value Non-ortho PCBs congeners	PCB 169 previous TEF value = 0.01 PCB 169 revised TEF value = 0.03	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 105 previous TEF value = 0.0001 PCB 105 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 114 previous TEF value = 0.0005 PCB 114 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 118 previous TEF value = 0.0001 PCB 118 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 123 previous TEF value = 0.0001 PCB 123 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 156 previous TEF value = 0.0005 PCB 156 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 157 previous TEF value = 0.0005 PCB 157 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 167 previous TEF value = 0.00001 PCB 167 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)
Total Toxic Equivalence (TEF) value Mono-ortho PCBs congeners	PCB 189 previous TEF value = 0.0001 PCB 189 revised TEF value = 0.00003	Criterion developed through scientifically defensible methods. (1)

(1) On March 17, 2005, EPA approved DNREC's use of Toxicity Equivalence Factors (TEFs) for dioxins, furans, and dioxin-like PCBs, where the criteria is for the "total toxic equivalence (TEQ) to 2, 3,7,8-TCDD." The toxic equivalence for a sample is the sum of the concentration for each congener multiplied by its associated TEF listed in Table 2 in Delaware's Surface Water Quality Standards.

$TEQ = \sum ((\text{Concentration of Congener in sample}) \times (TEF))$
Where the TEF is unitless and the concentration is in ug/l

DNREC revised the TEFs for several congeners based on the peer reviewed article ***The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds***, Van den Berg, et al.